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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,448	02/15/2006	Fabien Gaben	Q88681	6810
23373 7590 04/25/2008 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
CHEN, CHRISTINE				
ART UNIT		PAPER NUMBER		
1793				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/539,448

**Applicant(s)**

GABEN ET AL.

**Examiner**

CHRISTINE CHEN

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4-19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 6/20/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Claim Objections***

1. Claims 4-19 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "possibly calcium and/or magnesium" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 103***

4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami (JP 11-092873 Machine Translation) or Baudry (US 5643697).

Both Murakami and Baudry disclose a Fe-based alloy satisfying the relationships:  $Al+Mo+Cu+Cr \leq 0.15\%$ ,  $0.015\% \leq 2(V+Ti)+Nb+Zr+Ta+Hf \leq 0.2\%$ , and  $0.0025\% \leq N+O \leq 0.015\%$ . A comparison among the instant invention, Murakami and Baudry is shown in the Table below (Murakami: see claims 1-3, verified by on-site oral translation. Machine Translation is supplied with current office action. A full translation will be supplied with the next office action. Baudry: see column 2 lines 5-40).

Table I. Comparison among instant invention, Murakami, and Baudry

Element	Instant claim 1 (weight %)	Murakami (weight %)	Baudry (weight %)
Ni	35-37	30-45	35.5-37
C	0.001-0.05	0.001-0.05	0-0.02
Mn	0-0.10	0.01-0.5	0-0.1
Si	0-0.15	0.01-0.25	0.03-0.15
Co	0-0.5	0-0.1	0-0.5
S	Less than 0.002	0-0.001	0-0.001

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P	Less than 0.006	0-0.005	0-0.003
B	0-0.0005	0-0.0003	0-0.001
Al	Al+Mo+Cu+Cr≤0.15	0.001-0.05	0-0.005
Mo		0-0.5	0-0.1
Cu		0-0.1	0-0.1
Cr		0-0.1	0-0.1
V		0	0-0.1
Ti	0.015≤2(V+Ti)+Nb+Zr+Ta+Hf≤0.2	0-0.01	0
Nb		0	0-0.1
Zr		0-0.01	0
Ta		0	0
Hf		0	0
N	0.0025≤N+O≤0.015	0-0.003	0-0.005
O		0-0.003	0-0.01
Ca	0.0001-0.005, alone or in combination	0-0.01	0.0001-0.002
Mg		0.0002-0.01	0.0001-0.002
Fe and impurities	balance	balance	balance

It has been well settled in many court decisions that when a claimed range of an element in a composition is either inside, overlapped or close to the range of the same element in a prior art composition, a *prima facie* case of obviousness is established since it would have been obvious to one having ordinary skill in the art to construct a composition comprising said element having a concentration selected within the disclosed range.

With regards to fulfilling the equation  $Al+Mo+Cu+Cr \leq 0.15$ , in Murakami, when  $Al=0.001$ ,  $Mo=0$ ,  $Cu=0$ , and  $Cr=0$ , the equation is satisfied. In Baudry, when  $Al=0$ ,  $Mo=0$ ,  $Cu=0$  and  $Cr=0$ , the equation is satisfied.

With regards to fulfilling the equation  $0.015 \leq 2(V+Ti)+Nb+Zr+Ta+Hf \leq 0.2$ , in Murakami, when  $V=0$ ,  $Ti=0.01$ ,  $Nb=0$ ,  $Zr=0$ ,  $Ta=0$ , and  $Hf=0$ , the equation is satisfied. In Baudry, when  $V=0.1$ ,  $Ti=0$ ,  $Nb=0$ ,  $Zr=0$ ,  $Ta=0$ , and  $Hf=0$ , the equation is satisfied.

With regards to fulfilling the equation,  $0.0025 \leq N+O \leq 0.015$ , in Murakami, when  $N=0.003$  and  $O=0.003$ , the equation is satisfied. In Baudry, when  $N=0.005$  and  $O=0.01$ , the equation is satisfied.

With regards to the further limitation of niobium as recited in claim 2 and the further limitation of carbon as required in claim 3, Table I shows the overlapping of these ranges with those of Murakami and Baudry.

It has been well settled in many court decisions that when a claimed range of an element in a composition is either inside, overlapped or close to the range of the same

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element in a prior art composition, *a prima facie* case of obviousness is established since it would have been obvious to one having ordinary skill in the art to construct a composition comprising said element having a concentration selected within the disclosed range.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINE CHEN whose telephone number is (571)270-3590. The examiner can normally be reached on Monday-Friday 8:30am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/  
Supervisory Patent Examiner, Art  
Unit 1793

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CC